REBUTTAL TESTIMONY OF

JAMES W. NEELY, P.E.

ON BEHALF OF

DOMINION ENERGY SOUTH CAROLINA, INC.

DOCKET NO. 2022-2-E

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND OCCUPATION.

A. My name is James W. Neely. My business address is 400 Otarre Parkway, Cayce, South Carolina 29033. I am employed by Dominion Energy Services, Inc. as an Energy Market Consultant for Dominion Energy South Carolina, Inc. ("DESC" or the "Company").

Q. ARE YOU THE SAME JAMES W. NEELY WHO PREVIOUSLY SUBMITTED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes, I am.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to respond to certain matters raised in the pre-filed direct testimony of R. Thomas Beach, witness for the South Carolina Coastal Conservation League and Southern Alliance for Clean Energy. The lack of a response to any of the specific assertions made by Witness Beach does not constitute the Company's agreement to those assertions.

Q. DOES YOUR REBUTTAL TESTIMONY RAISE ANY NEW ISSUES IN THIS PROCEEDING?

A. No, it does not. My rebuttal is limited to addressing the matters raised by Witness Beach. I do not address any other issues present in this proceeding, and I do not raise any new matters in this rebuttal testimony.

Q. WHAT FACTORS DID THE COMPANY UTILIZE IN CALCULATING THE VALUATION OF THE COMPONENTS OF VALUE FOR NET ENERGY METERING ("NEM") DISTRIBUTED ENERGY RESOURCES ("DER")?

A. The Company adhered to the 11 components of value for NEM Distributed Energy Resources (the "NEM Value Stack") set forth in Order No. 2015-194 as reaffirmed in Order 2021-569 issued in Docket 2019-182-E with the modification to the long run values to reflect a 20-year avoided energy and capacity component.

Q. DOES WITNESS BEACH AGREE WITH THE COMPANY'S VALUATION OF ANY OF THE COMPONENTS OF THE NEM VALUE STACK?

A. Yes, he does. Witness Beach does not challenge the Company's Current Year or 20-Year Levelized values for (1) Avoided Energy Costs, (2) Ancillary Services, (3) Avoided Criteria Pollutants, (4) Utility Administration Costs, and (5) Environmental Costs in the NEM Value Stack.[1]

[1] See Beach Direct Testimony, p. 6, Table ES-1.

The agreed valuation of those components are as follows:

Current Period ($/kWh)	20-Year Levelized ($/kWh)	Component
$0.03024	$0.03878	Avoided Energy Costs
$0.00000	$0.00000	Ancillary Services
$0.0000004	$0.0000002	Avoided Criteria Pollutants
$0.00000	$0.00000	Utility Administration Costs
$0.00015	$0.00011	Environmental Costs

Q. DO YOU AGREE WITH WITNESS BEACH THAT DESC UNDERVALUES CERTAIN VALUES OF DISTRIBUTED SOLAR?

A. No. For the DER NEM methodology calculation, which is used for establishing the annual amount of the DER NEM Incentive, DESC's calculations are appropriate because they conform to the requirements of Order No. 2015-194. The calculations also conform to the requirements of Order No. 2021-569 and the avoided cost directive in Docket No. 2021-88-E where appropriate.

Q. HOW DO YOU RESPOND TO WITNESS BEACH'S CLAIM THAT AVOIDED ENERGY COSTS IN THIS DOCKET SHOULD BE DIFFERENTIATED ON A SEASONAL AND TEMPORAL BASIS?

A. The avoided energy costs determined by DESC are sufficient and comply with the existing methodology for Act 236 purposes (i.e., for establishing the annual amount of the DER NEM Incentive). The Company has delayed implementing the temporal and seasonal data because the periods for avoided energy costs should be synced with the temporal and seasonal periods for T&D avoided cost as described

in the Company's T&D Narrative and Marginal Line Loss Plan filed on November 17, 2021, in Docket No. 2019-182-E. The development of the T&D Narrative and Marginal Line Loss Plan being undertaken by the Company will not be completed until the end of 2022.

Witness Beach did not contest DESC's calculated value of avoided energy cost for the Current Period or for the 20-Year Levelized Period. Therefore, Witness Beach's claims have no impact in this matter or the calculation of the avoided energy cost component of the NEM value stack.

Q. DO YOU AGREE THAT WITNESS BEACH'S CAPACITY CONTRIBUTION OF 26.5% BASED ON AN AVERAGE OF THE GROSS LOADS AND NET LOADS METHODOLOGIES REPRESENTS A REASONABLE AVERAGE CAPACITY CONTRIBUTION?

A. No. Using an average of the value of the first MW with the last MW artificially inflates the current value. The first MW added to the system occurred years ago. The capacity value should be based on the current configuration of the system and represent the current avoided capacity value. The calculation done by DESC uses the previous year's solar generation, the previous year's net load profile, and best estimates of the current value of avoided capacity on the DESC system. DESC's calculation of 3.423% capacity contribution recognized the real but relatively small impact that DER solar provides relative to DESC's capacity needs

on an annual basis. Moreover, Witness Beach's proposal would calculate a value higher than the current actual value.

Also, Witness Beach presents the same methodology that the Commission rejected in the Company's 2021 fuel proceeding, finding Witness Beach overvalued solar capacity contribution. Witness Beach presented the same methodology again in Docket No. 2019-182-E, and the Commission again declined to adopt his approach.

Q. DO YOU AGREE WITH WITNESS BEACH THAT DESC'S AVOIDED GENERATION CAPACITY COSTS SHOULD BE $180.61 PER kW-YEAR FOR THE CURRENT AND THE 20-YEAR PERIOD?

A. No. For the current period, which is the year 2022, there is no capacity to be avoided. In fact, there is no capacity to be avoided until 2028 when it is assumed that 1,294 MW of coal generation is retired. For the 20-year period, the difference in revenue requirement ("DRR") method, approved by the Commission, accurately calculates a value of $87.73 per kW-year. The peaker method that Witness Beach proposes overstates the system avoided capacity value.

Q. DO YOU AGREE WITH WITNESS BEACH THAT THE REPLACEMENT OF AGING CT UNITS SHOULD BE USED IN CALCULATING AVOIDED CAPACITY?

A. No. These units should not be used in the calculation. First, these units are "in kind" replacements that are not intended to provide additional capacity. These

units have critical and reliability functions that NEM DER solar generators cannot replace. Second, these replacement units are not avoidable.

Q. DO YOU AGREE WITH WITNESS BEACH'S CLAIM THAT DESC'S SEGREGATION OF TRANSMISSION AND DISTRIBUTION (T&D) COSTS WERE ARBITRARY?

A. No. T&D costs can have multiple purposes, but the utility is able to accurately segment costs into groups that have a primary reliability or a primary load growth function. T&D costs with a primary reliability function should not be included in T&D avoidable costs.

Q. WHY IS WITNESS BEACH'S ESTIMATE OF TRANSMISSION AND DISTRIBUTION CAPACITY COSTS OVERSTATED AND INACCURATE?

A. Witness Beach's method for computing DESC's T&D marginal costs is incorrect in establishing avoided transmission capacity costs related to load growth. Specifically, Witness Beach uses all transmission costs between 2009 and 2020 from FERC Form 1 and again all costs from the T&D investment growth plan from 2021-2025. These costs include costs not related to load growth, but include safety, grid hardening and modernization, lifecycle replacement and repair. As a result, his regression analysis computes a relationship in the growth of all transmission costs relative to load growth, not costs associated with only load growth. To correct this, DESC studies the transmission data and identifies projects needed for load growth. Specifically, DESC reviews all projects planned and identifies which projects are

"avoidable." This error by Witness Beach results in a significantly higher estimate of avoided transmission costs. This is why the Commission rejected Witness Beach's request to use the regression analysis in Docket Nos. 2021-2-E and No. 2019-182-E.

For the same reasons noted above regarding transmission costs, Witness Beach's estimates of distribution avoided costs will be over-stated because he includes costs in his estimation that are not related to load growth.

Q. DO YOU AGREE WITH WITNESS BEACH THAT DESC'S AVOIDED T&D CAPACITY COSTS ARE $56.70 PER kW-YEAR FOR TRANSMISSION AND $88.10 PER kW-YEAR FOR DISTRIBUTION?

A. No. DESC identified the average annual T&D costs in the 5-year budget that could be avoided and used these values to calculate transmission and distribution avoided cost.

DESC calculates a total transmission avoided cost of $43.76 per kW which is then converted to a value of $4.6095 per kW year using a 10.53% economic carrying charge and 29,708 kW of annual load growth over the next 20 years. DESC calculates a total distribution avoided cost of $105.30 per kW which is then converted to a value of $11.48823 kW per year using a 10.91% economic carrying charge and 29,708 kW of annual load growth over the next 20 years. Combining these two values yields an annual 20 year avoided T&D cost of $16.0977 per kW year or $0.001838 per kW hour.

Q. DO YOU AGREE WITH WITNESS BEACH THAT DISTRIBUTED SOLAR AVOIDS T&D CAPACITY COSTS EQUAL TO 29% OF THE SOLAR NAMEPLATE FOR TRANSMISSION AND 31% FOR DISTRIBUTION?

A. No. The T&D avoided cost is included as a $/kWh value in the NEM calculation which allows the NEM DER calculation to be assigned a credit for T&D avoided cost in every hour that customers generate.

Q. DO YOU AGREE WITH WITNESS BEACH THAT THE CURRENT PERIOD SHOULD INCLUDE T&D AVOIDED CAPACITY COSTS?

A. No. There is no avoided T&D cost in the current period because there is no load growth in the current period.

Q. WHY SHOULD THE COMMISSION REJECT WITNESS BEACH'S CLAIM THAT THE 20-YEAR LEVELIZED AVOIDED COSTS ASSOCIATED WITH THE RISKS OF CARBON REGULATION SHOULD BE QUANTIFIED FROM DATA IN DESC'S 2021 INTEGRATED RESOURCE PLAN UPDATE, AT $0.0046 PER kWh?

A. Witness Beach's assumption violates the clear instruction in Commission Order No. 2015-194 and Order No. 2021-569 that the component of value for avoided CO_2 is set at zero until state or federal laws or regulations result in an avoidable cost on utility systems for these emissions. Currently, there are no state or federal laws or regulations restricting the emission of CO2 pollutants. Witness

Beach admits this reality on page 26, lines 16-17 and page 27, lines 16-17 of his direct testimony. Therefore, the value for CO_2 pollutants is properly set to zero.

Q. DO YOU AGREE WITH WITNESS BEACH THAT DISTRIBUTED RENEWABLE GENERATION IS EQUIVALENT TO A FUEL HEDGING PROGRAM AND SHOULD BE VALUED AS SUCH?

A. No. DESC does not hedge fuels for electric generation. Therefore, the cost and the value for fuel hedging is zero. Witness Beach claims that fuel diversity should be considered a fuel hedging program. DESC agrees that fuel diversity is valuable and important, but fuel diversity does not constitute a fuel hedging program. As the Commission found in Order No. 2021-569: "a zero value for hedging is reasonable and appropriate. The Company does not hedge its fuel costs and, thus, the cost for this category would be zero."

Q. DO YOU AGREE WITH WITNESS BEACH THAT THE COSTS OF INTEGRATING DER SHOULD BE REDUCED IN RECOGNITION THAT ONLY A PORTION OF DER OUTPUT IS EXPORTED TO THE GRID?

A. No. For any exported power, power in excess of that used by the customer, the full integrated cost will be applied. For energy used by the customer, zero integrated cost will be applied.

Q. DO YOU AGREE WITH WITNESS BEACH'S CLAIM THAT MARGINAL LINE LOSSES ARE GREATER THAN AVERAGE LINE LOSSES BY OVER 50%?

A. No. The study that DESC has in process will determine the actual marginal line losses associated with customer-generator facilities. In our calculation of marginal line losses, DESC assumes that marginal line losses for distribution are 100% higher than average line losses. For marginal transmission line losses, average line losses are used. DESC's transmission is configured as a network; therefore, transmission marginal losses are approximately equal to average losses.

CONCLUSION

Q. WHAT ARE YOU ASKING THIS COMMISSION TO DO?

A. I am respectfully requesting that the Commission approve the calculation of the total value of NEM Distributed Energy Resources as set forth in my prefiled direct testimony.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.